IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A titanium alloy consisting of:

when the entirety is taken as 100% by mass,

at least one alloying element selected from the group consisting of molybdenum (Mo), vanadium (V), tungsten (W), niobium (Nb), tantalum (Ta), iron (Fe), chromium (Cr), ~~nickel (Ni), cobalt (Co),~~ and copper (Cu) ~~and aluminum (Al)~~ in a molybdenum equivalent "Mo_{eq}" of from 3 to 11% by mass, the molybdenum equivalent determined by the following equation,

$$Mo_{eq} = Mo_{mass} + 0.67V_{mass} + 0.44W_{mass} + 0.28Nb_{mass} + 0.22Ta_{mass} + 2.9Fe_{mass} + 1.6Cr_{mass}\ [[+ 1.1Ni_{mass} + 1.4Co_{mass}]] + 0.77Cu_{mass}\ [[-Al_{mass}]]$$

, wherein Mo_{mass}, V_{mass}, W_{mass}, Nb_{mass}, Ta_{mass}, Fe_{mass}, Cr_{mass}, [[Ni_{mass}, Co_{mass}, Cu_{mass} and Al_{mass}]] and Cu_{mass} are expressed in percentages by mass;

~~at least one~~ an interstitial solution element that is ~~selected from the group consisting of~~ oxygen (O)~~, nitrogen (N) and carbon (C)~~ in an amount of from 0.6 to 3% by mass; and

the balance of titanium (Ti);

~~the content of Al being controlled to 1.8% by mass or less;~~ and

being β single phase at room temperature ~~at least~~;

wherein said titanium alloy is produced by a solution treatment comprising:

heating a raw titanium alloy material to form a β single phase at a temperature above the $\alpha+\beta/\beta$ transformation temperature of the raw titanium alloy material; and

quenching the heated raw titanium alloy material to form a titanium alloy that is a β single phase at room temperature.

Claim 2 (Cancelled)

Claim 3 (Original): The titanium alloy set forth in claim 1 being of flexibility to exhibit a Young's modulus of 70 GPa or less.

Claim 4 (Original): The titanium alloy set forth in claim 1 being of high strength to exhibit a tensile strength of 1,000 MPa or more.

Claim 5 (Original): The titanium alloy set forth in claim 1 being of high elasticity to exhibit an elastic deformability of 1.6% or more.

Claim 6 (Canceled).

Claim 7 (Withdrawn, Currently Amended): A process for producing a titanium alloy, comprising:

subjecting a raw titanium-alloy material to a solution treatment,

the raw titanium-alloy material comprising:

when the entirety is taken as 100% by mass,

at least one alloying element selected from the group consisting of Mo, V, W, Nb, Ta, Fe, Cr, and Cu ~~Ni, Co, Cu and Al~~ in a molybdenum equivalent "Mo_{eq}" of from 3 to 11% by mass, the molybdenum equivalent determined by the following equation,

$$Mo_{eq} = Mo_{mass} + 0.67V_{mass} + 0.44W_{mass} + 0.28Nb_{mass} + 0.22Ta_{mass} + 2.9Fe_{mass} + 1.6Cr_{mass} + 1.1Ni_{mass} + 1.4Co_{mass} + 0.77Cu_{mass} - Al_{mass},$$

wherein Mo_{mass}, V_{mass}, W_{mass}, Nb_{mass}, Ta_{mass}, Fe_{mass}, Cr_{mass}, ~~Ni_{mass}, Co_{mass},~~ and Cu_{mass} ~~and Al_{mass}~~ are expressed in percentages by mass;

~~at least one~~ an interstitial solution element that is O ~~selected from the group consisting of O, N and C~~; and

the balance of Ti;

~~the content of Al being controlled to 1.8% by mass or less;~~

the solution treatment comprising the steps of:

heating the raw titanium-alloy material to form β single phase therein at a temperature above the $\alpha+\beta/\beta$ transformation temperature of the raw titanium alloy material; and

quenching the heated raw titanium-alloy material,

whereby producing a titanium alloy being β single phase at room temperature at least.

Claim 8 (Withdrawn): The process set forth in claim 7, wherein the raw titanium-alloy material is held at a β transformation temperature or more at which the raw titanium-alloy material is turned into β single phase for from 1 to 60 minutes in the heating step.

Claim 9 (Withdrawn): The process set forth in claim 7, wherein the heated raw titanium-alloy material is quenched at a cooling rate of from 0.5 to 500 K/sec. in the quenching step.

Claim 10 (Withdrawn): The process set forth in claim 7, wherein the raw titanium-alloy material further comprises at least one additional alloying element selected from the group consisting of Zr, Hf, Sc, Mn, Sn and B in an amount of from 0.1 to 10% by mass.

Claim 11 (Currently Amended): The titanium alloy set forth in claim 1, wherein the Mo_{eq} of said at least one alloying element is of from 3.5 to 10.5% by mass.

Claim 12 (Canceled).

Claim 13 (Currently Amended): The titanium alloy set forth in claim 1, wherein the ~~at least one~~ interstitial element oxygen is in an amount of from 0.7 to 3% by mass.

Claim 14 (Cancelled)

Claim 15 (Currently Amended): A titanium alloy consisting of:

when the entirety is taken as 100% by mass,

at least one alloying element selected from the group consisting of molybdenum (Mo), vanadium (V), tungsten (W), niobium (Nb), tantalum (Ta), iron (Fe), chromium (Cr), ~~nickel (Ni), cobalt (Co),~~ and copper (Cu) ~~and aluminum (Al)~~ in a molybdenum equivalent "Mo_{eq}" of from 3 to 11% by mass, the molybdenum equivalent determined by the following equation,

$Mo_{eq} = Mo_{mass} + 0.67V_{mass} + 0.44W_{mass} + 0.28Nb_{mass} + 0.22Ta_{mass} + 2.9Fe_{mass} + 1.6Cr_{mass} + ~~1.1Ni_{mass} + 1.4Co_{mass} +~~ 0.77Cu_{mass} ~~Al_{mass}~~$, wherein Mo_{mass}, V_{mass}, W_{mass}, Nb_{mass}, Ta_{mass}, Fe_{mass}, Cr_{mass}, ~~Ni_{mass}, Co_{mass},~~ and Cu_{mass} ~~and Al_{mass}~~ are expressed in percentages by mass;

at least one additional alloying element selected from the group consisting of zirconium (Zr), hafnium (Hf), scandium (Sc), manganese (Mn), tin (Sn) and boron (B) in an amount of from 0.1 to 10% by mass;

~~at least one~~ an interstitial solution element ~~selected from the group consisting of~~ that is oxygen (O)~~, nitrogen (N) and carbon (C)~~ in an amount of from 0.6 to 3% by mass; and

the balance of titanium (Ti);

~~the content of Al being controlled to 1.8% by mass or less;~~ and

being β single phase at room temperature ~~at least~~;

wherein said titanium alloy is produced by a solution treatment comprising:

heating a raw titanium alloy material to form a β single phase at a temperature above the $\alpha+\beta/\beta$ transformation temperature of the raw titanium alloy material; and

quenching the heated raw titanium alloy material to form a titanium alloy that is a β single phase at room temperature.

Claim 16 (Currently Amended): The titanium alloy set forth in claim 15, wherein the Mo_{eq} of said at least one alloying element is of from 3.5 to 10.5% by mass.

Claim 17 (Currently Amended): The titanium alloy set forth in claim 15, wherein the ~~at least one~~ interstitial element oxygen is in an amount of from 0.7 to 3% by mass.

Claims 18-23 (Cancelled)

Claim 24 (Currently Amended): The titanium alloy of claim 1, which is produced by a process involving solution treatment comprising:

heating the raw titanium-alloy material for a time sufficient to form β single phase therein; and

quenching the heated raw titanium-alloy material;

thereby producing a titanium alloy characterized as a β single phase at 273-313 K ~~273-313° K~~.